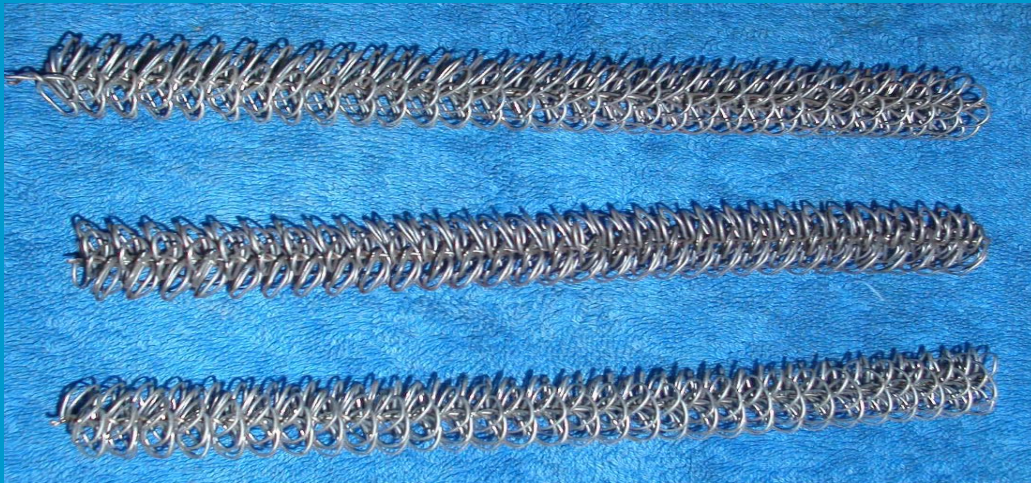


Supplying To The World Of Quality Turbulators / Inserts

Turbulators / Inserts

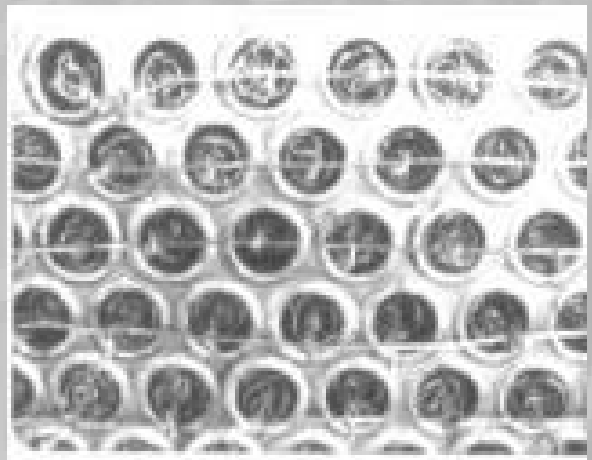


WIRE PETAL TURBULATORS



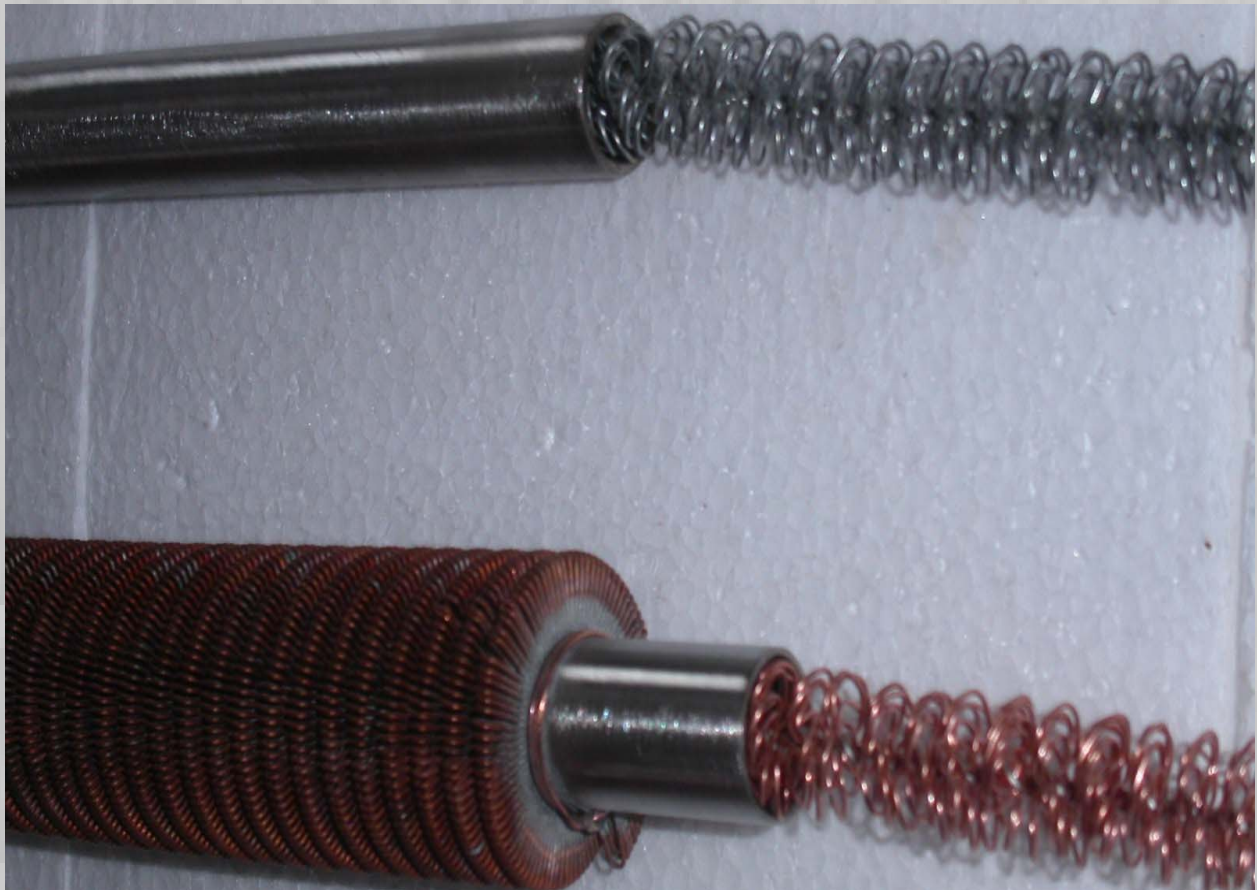
Our Wire petal turbulators have a unique construction which maximizes turbulence while maintaining a minimum pressure drop. This is achieved by twisting the wire into circular loops in a “feather duster” formation around a spine formed from the wire itself. This feather duster formation slants all the loops slightly in one direction. There is a hook at the one end which enables an easy pull through the tubes. As they are made from round wire, there are no sharp edges. This prevents any damage to the tubes (especially non ferrous tubes)

COOLER BLOCK INSERTION



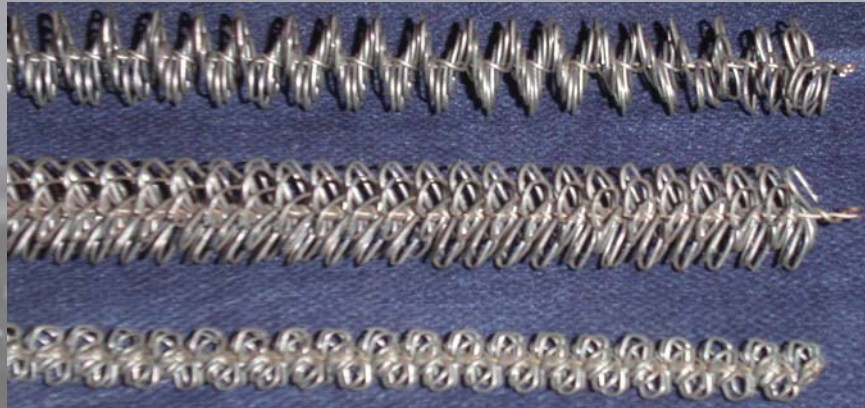
This turbulator is especially useful for insertion in flat fin type oil coolers where the tubes have been expanded through the fins and it is difficult to solder the turbulator in place. Also because the tubes in such a cooler are delicate, it is necessary to have easy-to-insert turbulators.

INSERTION IN BARE / FINNED TUBES



The thin wire diameter provides minimum pressure drop while providing maximum turbulence. They are very good for improving the efficiency of all types of finned tubes.

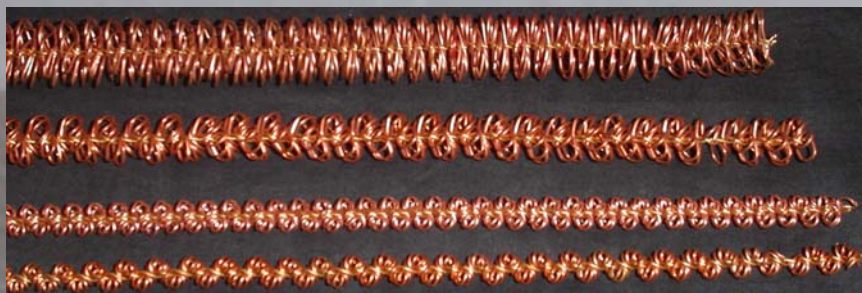
DIFFERENT SIZES



Suitable for any tube size between:

3/8" (9.525 mm) OD
to
1 1/2" (38.1 mm) OD

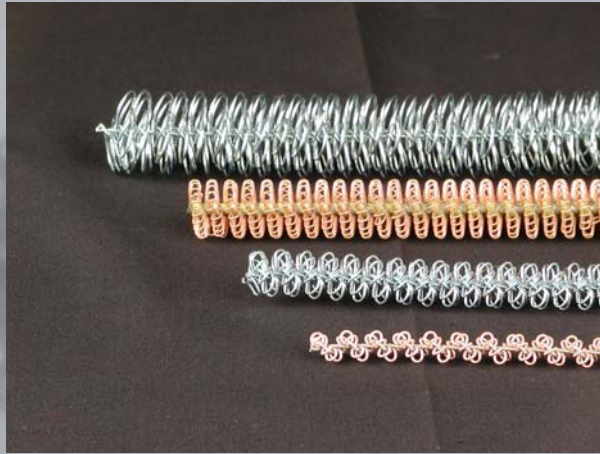
DIFFERENT DENSITIES



We offer these turbulators in the following configurations.

- | | |
|----|----------------------------|
| HD | - High Petal Density |
| MD | - Medium Petal Density |
| LD | - Low Petal Density |
| CD | - Customized Petal Density |

DIFFERENT MATERIALS



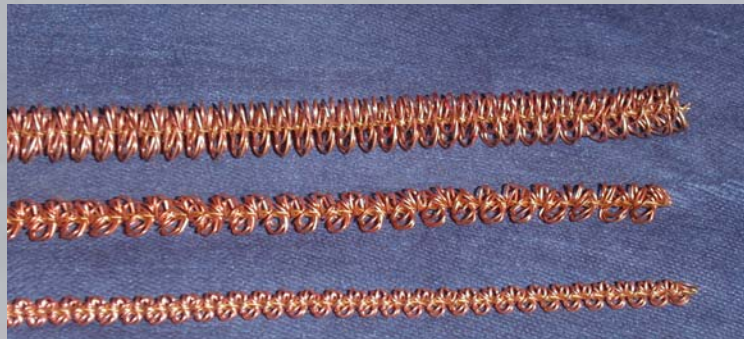
We can offer them in the following materials

Copper

Galvanized Steel (Not suitable for applications where there is a ZINC free requirement.)

Stainless Steel

Brass



SOLDER BOND OPTION

It is possible to solder these turbulators inside the tubes for better bonding and performance. If this is desired we can offer the turbulator with solder wire runners which would melt on heating the tubes bonding the turbulator to the inside of the tube. After turbulator insertion an arrangement for baking or heating the tubes or complete cooler is however required.

Alternatively we can supply tubes with turbulators duly soldered. These type of tubes can then be used after further outer finning. These can be supplied in various material combinations.

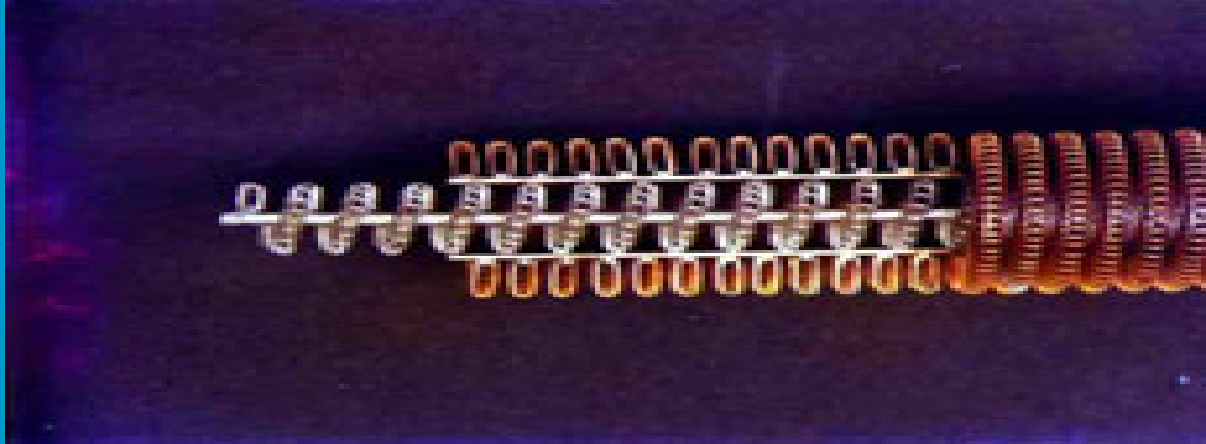
Their Performance will depend on various factors but our customers have been able to achieve 25 - 30% reduction in cooler size in most cases.

RIGID TURBULATOR



In these turbulators, fins are soldered to a rigid central rod. These turbulators can be then inserted / soldered inside the tubes. These tubes then can be finned (If required) on the outside using any appropriate type of fin. If the turbulator is soldered inside the tubes, the bonding provides superior heat transfer to the tubes.

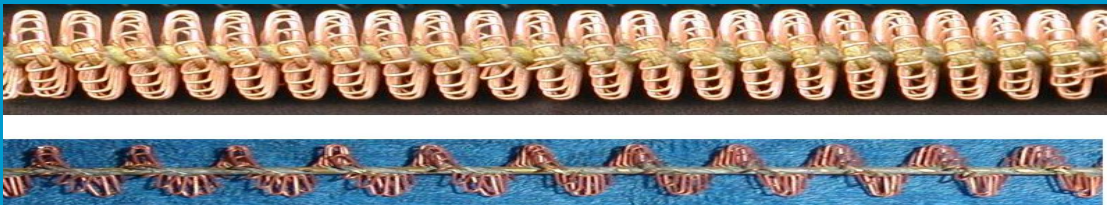
CROSS SECTION OF RIGID TURBULATOR SOLDERED INSIDE A WIRE FIN TUBE



We can offer a bare tube with the turbulators already soldered inside on following tube materials:

- 1) Copper
- 2) Cupro Nickel 90:10 & 70:30
- 3) Alu. Brass
- 4) Steel
- 5) Stainless Steel

DIFFERENT DENSITIES



Once again we can offer these turbulators and turbulated tubes in the following densities & sizes:

- | | |
|----|----------------------------|
| HD | - High Petal Density |
| MD | - Medium Petal Density |
| LD | - Low Petal Density |
| CD | - Customized Petal Density |



CONCEPT ENGINEERING INTERNATIONAL

Central Bank Of India Main Bldg., 4th Floor., Office No. 14, Fort, Mumbai 400 023
INDIA

Tel Nos. 91-22-2265 7589, 2265 4309, 2265 5283.

Fax No : 91-22-2265 0805.

e-mail: mail@conceptengg.com

